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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): **Kamil Paruch et al.** : Group Art Unit: To Be Assigned
Serial No.: **10/665,005** : Examiner: To Be Assigned
Filed: **09/19/2003** : Attorney Docket No. : OC01625K
For: **NOVEL IMIDAZOPYRAZINES AS CYCLIN
DEPENDENT KINASE INHIBITORS** :
X

**INFORMATION DISCLOSURE STATEMENT AND
SUBMISSION OF INTERNATIONAL SEARCH REPORT**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to Rule 56, it is requested that the documents listed on the accompanying PTO-1449 Form be considered and made of record in the above-identified patent application. Copy(ies) of these references ☒ are attached ☐ were filed in related application U.S. Serial No(s) _____ filed _____, respectively.

(b) No fee is believed due because:

- ☐ This Information Disclosure Statement is being filed within three (3) months of the filing date of the application.
- ☐ This Information Disclosure Statement is being concurrently filed with the above-identified application.
- ☐ This Information Disclosure Statement is being concurrently filed with a Request for Continued Examination (RCE).
- ☐ This Information Disclosure Statement is being filed prior to the mailing of a first Office Action on the merits.

(c) ☒ This Information Disclosure Statement is being filed before the mailing date of any final action, notice of allowance or an action that otherwise closes prosecution; and

☐ Each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement; or

☐ No item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this Information Disclosure Statement was known to any individual designated in § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement; or

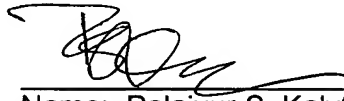
☒ The Commissioner is hereby authorized to charge the requisite fee listed on the attached Fee Transmittal Sheet.

- (d) ☐ This Information Disclosure Statement is being filed on or before the payment of the issue fee; and
- ☐ Each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement; or
- ☐ No item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this Information Disclosure Statement was known to any individual designated in § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement; and
- ☐ The Commissioner is hereby authorized to charge the requisite fee listed on the attached Fee Transmittal Sheet.
- ☒ The Commissioner is hereby authorized to charge any additional fees which may be required for this Information Disclosure Statement, or credit any overpayment to Deposit Account No. 19-0365, Patent Case No. OC01625K.

Respectfully submitted,
SCHERING-PLOUGH CORPORATION

Dated: **March 26, 2004**
SCHERING-PLOUGH CORPORATION
Patent Department, K-6-1, 1990
2000 Galloping Hill Road
Kenilworth, NJ 07033-0530
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By:


Name: Palaiyur S. Kalyanaraman
Reg. No.: 34,634
Attorney of Record
Telephone No.: (908) 298-5068



PTO/SB/17 (10-03)

Approved for use through 07/31/2006. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ 180.00

Complete if Known

Application Number	10/665,005
Filing Date	09/19/2003
First Named Inventor	Kamil Paruch
Examiner Name	
Art Unit	
Attorney Docket No.	OC01625K

METHOD OF PAYMENT (check all that apply)☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None☒ Deposit Account:Deposit
Account
Number
Deposit
Account
Name

19-0365

Schering-Plough Corporation

The Director is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments☒ Charge any additional fee(s) or any underpayment of fee(s)☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1001 770	2001 385	Utility filing fee	
1002 340	2002 170	Design filing fee	
1003 530	2003 265	Plant filing fee	
1004 770	2004 385	Reissue filing fee	
1005 160	2005 80	Provisional filing fee	

SUBTOTAL (1) (\$ 0.00

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

	Extra Claims	Fee from below	Fee Paid
Total Claims	-20** =	X	
Independent Claims	-3** =	X	
Multiple Dependent			

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description
1202 18	2202 9	Claims in excess of 20
1201 86	2201 43	Independent claims in excess of 3
1203 290	2203 145	Multiple dependent claim, if not paid
1204 86	2204 43	** Reissue independent claims over original patent
1205 18	2205 9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$ 0.00

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)**3. ADDITIONAL FEES**

Large Entity - Small Entity

Fee Code (\$)	Fee Code (\$)	Fee Description	Fee Paid
1051 130	2051 65	Surcharge - late filing fee or oath	
1052 50	2052 25	Surcharge - late provisional filing fee or cover sheet	
1053 130	1053 130	Non-English specification	
1812 2,520	1812 2,520	For filing a request for <i>ex parte</i> reexamination	
1804 920*	1804 920*	Requesting publication of SIR prior to Examiner action	
1805 1,840*	1805 1,840*	Requesting publication of SIR after Examiner action	
1251 110	2251 55	Extension for reply within first month	
1252 420	2252 210	Extension for reply within second month	
1253 950	2253 475	Extension for reply within third month	
1254 1,480	2254 740	Extension for reply within fourth month	
1255 2,010	2255 1,005	Extension for reply within fifth month	
1401 330	2401 165	Notice of Appeal	
1402 330	2402 165	Filing a brief in support of an appeal	
1403 290	2403 145	Request for oral hearing	
1451 1,510	1451 1,510	Petition to institute a public use proceeding	
1452 110	2452 55	Petition to revive - unavoidable	
1453 1,330	2453 665	Petition to revive - unintentional	
1501 1,330	2501 665	Utility issue fee (or reissue)	
1502 480	2502 240	Design issue fee	
1503 640	2503 320	Plant issue fee	
1460 130	1460 130	Petitions to the Commissioner	
1807 50	1807 50	Processing fee under 37 CFR 1.17(q)	
1806 180	1806 180	Submission of Information Disclosure Stmt	180.00
8021 40	8021 40	Recording each patent assignment per property (times number of properties)	
1809 770	2809 385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810 770	2810 385	For each additional invention to be examined (37 CFR 1.129(b))	
1801 770	2801 385	Request for Continued Examination (RCE)	
1802 900	1802 900	Request for expedited examination of a design application	

Other fee (specify)

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ 180.00

SUBMITTED BY

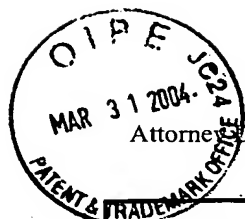
(Complete if applicable)

Name (Print/Type)	Palaiyur S. Kalyanaraman	Registration No. (Attorney/Agent)	34,634	Telephone	908-298-5068
Signature		Date	03/26/2004		

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Attorney Docket No.: OC01625K

PTO/SB/92 (08-03)

(Modified)

Application No.: 10/665,005

Filing Date: 09/19/2003

Applicant: Kamil Paruch et al.

Title: "Novel Imidazopyrazines as Cyclin Dependent Kinase Inhibitors"

Certificate of Mailing under 37 CFR 1.8

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Commissioner for Patents
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on 03/26/2004
Date


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Palaiyur S. Kalyanaraman, Reg. No. 34, 634

Typed or printed name of person signing Certificate

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Documents enclosed:

Certificate of Mailing - 1pg.

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Fee Transmittal - 1pg. in duplicate

Information Disclosure Statement - 2pgs.

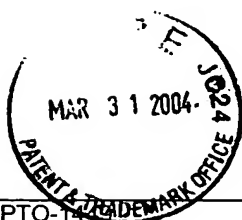
Copy of International Search Report - 5pgs.

PTO-1449 Form - 2pgs. in duplicate

References (11)

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FORM PTO-14 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use several sheets if necessary)</i>	ATTY. DOCKET NO.: OC01625K	APPLICATION NO.: 10/665,005
	APPLICANT: Kamil Paruch et al.	
	FILING DATE: 09/19/2003	GROUP:

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
	AA	5,028,605 A	07/02/1991	Sablayrolles et al.			
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION	
							YES	NO
	AL	WO 02 060492 A	08/08/2002	WIPO				
	AM	WO 02 50079 A	06/27/2002	WIPO				
	AN							
	AO							
	AP							

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

AQ	Viste, O. et al., "Imidazo(1,2-a)pyrazine Derivatives with Brochodilatory and Cyclic Nucleotide Phosphodiesterase Inhibitory Activities", <i>Bioorganic & Med. Chem.</i> , 7: 1059-1065 (1999).
AR	K. Zurbonsen et al., "Antiproliferative effects of Imidazo[1,2- α]pyrazine Derivatives on the Dami Cell Line", <i>Biochemical Pharmacology</i> , 54: 365-371 (1997).
AS	K. Zurbonsen et al., "Apoptotic effects of Imidazo[1,2- α]pyrazine Derivatives in the Human Dami Line", <i>European Journal of Pharmacology</i> , 320: 215-221. (1997).
AT	
AU	
AV	

EXAMINER	DATE CONSIDERED
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



FORM PTO-147		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE			ATTY. DOCKET NO.: OC01625K		APPLICATION NO.: 10/665,005	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT					APPLICANT: Kamil Paruch et al.			
(Use several sheets if necessary)					FILING DATE: 09/19/2003		GROUP:	
U.S. PATENT DOCUMENTS								
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE	
	AW							
	AX							
	AY							
	AZ							
	BA							
	BB							
	BC							
	BD							
	BE							
	BF							
	BG							
FOREIGN PATENT DOCUMENTS								
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO	
	BH	WO 02/10162	02/07/2002	WIPO				
	BI							
	BJ							
	BK							
	BL							
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)								
	BM	A. Sanderowicz et al., "Phase I Trial of Continuous Infusion Flavopiridol, a Novel Cyclin-Dependent Kinase Inhibitor, in Patients with Refractory Neoplasms", <i>J. Clin. Oncology</i> , 16 : 2986-2999 (1998).						
	BN	J. Vesely et al., "Inhibition of Cyclin-Dependent Kinases by Purine Analogues", <i>Eur. J. Biochem.</i> , 224 : 771-786 (1994).						
	BO	I. Meijer et al., "Biochemical and Cellular Effects of Roscovitine, a Potent and Selective Inhibitor of the Cyclin-Dependent Kinases cdc2, cdk2 and cdk5", <i>Eur. J. Biochem.</i> , 243 : 527-536 (1997).						
	BP	K. S. Kim et al., "Discovery of Aminothiazole Inhibitors of Cyclin-Dependent Kinase 2: Synthesis, X-ray Crystallographic Analysis, and Biological Activities", <i>J. Medicinal Chemistry</i> , 45 : 3905-3927 (2002)						
	BQ							
	BR							
EXAMINER				DATE CONSIDERED				
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.								